



TALK FOR A CHANGE: COMMUNICATION IN SUPPORT OF SOCIETAL RESPONSE TO CLIMATE CHANGE

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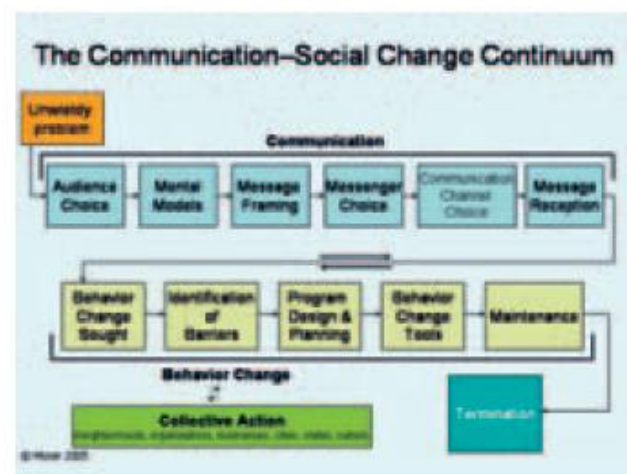
INTRODUCTION

News about global climate change isn't good. Scanning the papers on a regular basis, in fact, one could argue, news is getting worse. And if we are honest, we may even say that the news isn't the half of it. The scientific literature – not constrained by the economic pressures of the news business, journalistic norms of balancing viewpoints, competing political priorities, public indifference, and the whims of „issue attention cycles“ – lays out in far greater depth and sometimes painstaking detail where things are at. Status, trends, and outlooks of the world's climate, ecosystems, economic and social vulnerabilities, and societal capacities to deal with multiple rapid and interacting changes can easily dishearten the close observer. Indeed, the gulf between the urgency that many scientists see in global climate change and compounding global environmental and social changes vis-à-vis the extent of societal response to date (both in terms of mitigation and adaptation) is far from closing.

One session at the 6th Open Meeting of the Human Dimensions of Global Change Research Community in Bonn argued that one important reason for this persistent gap is inadequate communication of the risks and possible solutions of climate change to those who could enact changes. Such actors do not only include policy-makers involved in international climate negotiations, but ultimately every one: business executives, local and national government officials, civic society actors in non-governmental organizations as much as in houses of worship, educators, and individuals in their personal lives.

Communication plays a critical role in problem definition and agenda setting, creating an informed public and policy debate,

social mobilization, helping to build political pressure necessary for policy and social change, and in identifying, promoting and spreading possible behavioral and policy solutions. For communication to effectively play these roles, however, there is a growing need to better understand how the recipients of climate change information will treat the information that they receive, given specific personal and cultural concerns and backgrounds and socio-economic contexts, how they will respond behaviorally, and what opportunities and barriers exist to implementing a particular change promoted in a communication campaign.



The communication-social change continuum is here presented with a focus on individual behavior change. This does not suggest that individual behavior is the most important locus of climate change response; however, individuals – no matter how far the reach of their decision-making powers – will go through a similar process. Important contextual forces (e.g., culture, power relationships, interests, capacities) will shape this bi-directional and cyclical process in unique ways.

The session, entitled „Climate Change Needs Social Change – The Role of Communication“, organized by the authors, brought together a variety of perspectives from Europe, the U.S., and Africa^{1,2} to explore the communication – social change continuum around the following questions:

- What would effective communication of climate change look like?
- What role can such communication play in facilitating social change and societal response to climate change?
- What does research on communication and social change have to offer to inform improvements in our communication practice?
- What (cultural) differences and similarities are there in communication practice across nations that can both validate „good“ practice and inform future research?

Papers in this session explored the interactions, processes, and impacts of communication at a variety of „interfaces,“ for example, that between the media – mainly print and TV – and public opinion in the US (Maxwell Boykoff, University of California) and in the UK (Lorraine Whitmarsh, University of Bath); between experts and the media in northern/coastal Germany (Harald Heinrichs, University of Lüneburg, and Hans Peter Peters, Research Center Jülich); between the law, the media, government, and society at large in the US (Marilyn Averill, University of Colorado); and between individuals and communities – sometimes, but not always, mediated by formal media channels – in East, Central and Southern Africa (Patrick Luganda). An overview of the communication-social change continuum in the context of societal response to a global change challenge such as climate change was provided by Susanne Moser. It offered the conceptual „glue“ for the individual papers. This summary touches on some of the common themes and interesting differences emerging from the papers.

WHAT ROLE CAN COMMUNICATION PLAY IN SOCIETAL RESPONSE TO CLIMATE CHANGE?

The papers covered a wide variety of ways in which communication can facilitate social change. Some focused on the first and maybe most fundamental ways – such as raising awareness of or alerting to a problem, especially global ones that are difficult to detect with „the naked eye.“ More deeply, communication, especially lively and interactive forms of communication can help people create understanding and meaning. As such communication helps in direct and indirect ways to shape public or policy discourse, and thereby, influence public perceptions of the severity of climate change, perceptions of the state of the science on it, and perceptions of solutions. This was illustrated clearly in Boykoff’s paper, which investigated the impact that the journalistic norm of balancing viewpoints has had in the US on public perception of the state of the scientific consensus on climate change.

1 Unfortunately, the double session of papers was truncated by nearly 50% by the fact that contributors from South America, other African countries and Asia were unable to attend the meeting due to lack of funding. There are plans underway to compile written versions of all the papers – those presented and those intended for presentation – in a forthcoming Special Issue of the new e-journal *Communication, Cooperation and Participation*.

2 See http://openmeeting.homelinux.org/abstract_listing.asp; locate Session 98; click on „details“ of the session description and for the abstracts of all papers.

The public/media discourse in turn helps shape political agenda and can garner or dissipate public support for policy-making. Thus, the media plays a crucial role as mediator between science and society (Whitmarsh, Heinrichs). The media also plays a critical mediating role between issues of science and the law by highlighting and interpreting court cases about climate change to the listening public (Averill). Clearly, it is litigation itself that can help clarify existing law, influence corporate behavior, assign governmental responsibility, and validate (or undermine as it were) the credibility, legitimacy and salience of science. But the media, by reporting on such cases, can extend these roles of litigation to encouraging public debate, simply by casting the legal debates in a certain way in the public arena.

Finally, as Luganda illustrated, communication among individuals and communities can play an important role as a first-order coping strategy. Talking about „strange weather“ and changes in climatic patterns simply makes climate change less puzzling and helps integrate these changes into daily conversation and life. Taking a leaf from communication of HIV/AIDS in Africa, he suggested that communication is a cheap and powerful tool to reach deeply into people’s personal lives, allowing for information to be shared easily among concerned or affected populations.

ELEMENTS OF EFFECTIVE COMMUNICATION OF CLIMATE CHANGE

The question what role communication could play in societal response to climate change immediately raises a follow-on question about actual impact or effectiveness. The presentations addressed the potential and actual impacts of communication, but did not directly answer the question what would constitute *effective* communication. Obviously, the answer to that question is highly context-dependent. It depends on the stated goal of a communication effort, the communicator-audience interaction, who the audience is and what they need or want, the fit of communicated information and knowledge with the audience’s mental models, pre-existing knowledge, decision-making responsibilities and capacities. For example, is the intent to simply raise awareness, to inform, to alert the population at large or a specific subset, is it to educate in broader and/or deeper ways, is it to mobilize people into action, or to enable and empower them to take a specific type of action?

In principle, communication effectiveness may be judged by what actually has been said, how it has been said, who and/or how many have been reached by the communication, how that information has been received, and what the impact of the communication was on perceptions, understanding, decisions, and behavior. As a result, the measures of effective communication one could envision are varied and the ones we have are typically incomplete. All too frequently, however, communication efforts are not followed up with attempts to measure their impact.

We would argue that the measures that do exist can reveal underlying assumptions about what effective communication is believed to look like. For example, sometimes we count the number of pamphlets distributed or the hits on a web site. These may be the easiest ways to measure „impact“ yet they

also tend to reflect an underlying notion of communication as one-way information delivery, where it is assumed that „the information speaks for itself“ and will motivate appropriate societal response. Alternatively, one may measure – and social scientists frequently do, as reflected in several of the papers presented – the change in perceptions or levels of understanding in specified audiences over time as a result of communication (Boykoff, Whitmarsh). Sometimes these perceptions and understandings are compared to a desired level of knowledge (e.g., lay versus expert understanding of risks, lay versus expert mental models of global warming). This approach is common in contexts where the goal of communication is education, greater preparedness for certain risks, or where researchers are interested in understanding the impacts of different framings, content, communication media, and channels have on public understanding.

Another approach – represented by another one of the papers (Heinrichs) – is to judge the subjective satisfaction with communication interaction among those involved, for example of reporters and scientists when they interact. Moving toward decision or behavioral outcomes, one may also measure effectiveness by the number or types of actions taken in response to communication (as alluded to by Averill). Typically, due to the multi-causal influences on decisions and behaviors, these linkages are not only difficult to measure, but also rather weak (Moser). Finally, as another paper illustrated, communication is also an essential ingredient in the building of social capital (loosely understood here as informal networks of trustful relationships that support societal action). Measures of social capital are elusive, but the notion reveals an understanding of communication as a two-way exchange (Luganda, Whitmarsh). This latter notion comes closest in some ways to the origin of the word *communication*, which shares its Latin roots with that of *communion*, i.e., a process of imparting, sharing, and making common.

In short, the measures of communication effectiveness that we have are partial, but valuable measuring sticks for how well we are doing. What we know from these studies is that most lay audiences in the U.S., Europe and Africa, still misunderstand the causes and dynamic of climate change, still know little of possible solutions, still find it difficult to relate this global change to their lives and more immediate concerns and hence still don't see the relevance or urgency of the issue, and still don't understand why action is required now. Studies also show that scientists and other communicators (e.g., in environmental NGOs) frequently employ ineffective methods of trying to reach lay or policy audiences, and that the cultural and institutional gap between experts and the media continues to impede more effective interaction. Thus, improvement in practice is needed, and more studies of communication effectiveness are needed, including comparative studies across nations, cultures, issues, and time.

THE ROLE OF SCIENCE IN CLIMATE CHANGE COMMUNICATION

Scientists were the first to detect and define climate change; they also have dominated public discourse about the issue. Clearly, they have and continue to play a tremendous role in the communication of climate change. The media con-

tinues to rely on experts as the most important source of factual information (Heinrichs) – albeit typically „balanced“ by a perspective offered by other experts with contrary (and sometimes contrarian) perspectives. The documented result of this journalistic practice – as Boykoff showed – has been the wanting state of public understanding and engagement with the issue, and the stalled political debate in governmental circles.

So while scientists will continue to play a big role in communicating climate change, presenters at the 6th Open Meeting suggested that it may be time to broaden the circle of communicators. They also identified the need for a broadened conversation beyond the state of the science and associated uncertainties. Even though the scientific endeavor is driven by the pursuits of knowledge about incompletely understood arenas, the scientific consensus about the reality of climate change, and the human contribution to it, is growing. The deeper debate about response options, the associated trade-offs, and value choices, clearly also requires scientific input, but can and *should not* remain a scientific debate (e.g., Schneider 2004). In that sort of debate, scientists are not the only ones that have legitimate standing. Several presenters and others in the audience argued that the circle of messengers thus needs to be broadened beyond scientists (as mediated by the media or involved directly). This would imply also a move toward a dialogical notion of communication (not just „delivery“ of information). Examples where such a dialogic notion of communication is already practiced include the village communication and learning centers in Africa, or the agricultural and coastal/marine extension services in the U.S. In short, this shift would imply a move from one-way to two-way conversation, involving fundamental shifts in how we think about and conduct „outreach.“ Such an approach would also enrich the communication content as it would allow the information to be adjusted to better fit in the needs of the recipient audience. It would also allow communicators to deal with queries and misperceptions at an early stage in the communication cycle.

SIMILARITIES AND DIFFERENCES BETWEEN DEVELOPED AND DEVELOPING COUNTRIES

The Open Meeting offered a valuable opportunity to begin moving beyond our typical disciplinary and institutional enclaves and to compare notes across national experiences. Even from the limited set of studies represented in our session, we found interesting similarities in communication across EU/US/African contexts. Such similarities include, for example, the common need for creating relevance, for connecting climate change to people's lives and experiences and to decision-makers' spheres of influence for the issue to gain salience. In all countries represented by these papers, the important role of experts in and for public discourse was emphasized. Clearly, the challenge of communicating uncertain science, and conveying what science is all about, remains problematic in all regions. At the same time, virtually all papers expressed the need and desirability of moving beyond the sole reliance on experts as communicators, and beyond the one-way information-delivery model of communication so commonly still practiced.

Interestingly, across the national contexts represented, there may be interesting gender issues in access to and choice of communication channels, and in processing of received information – issues that should be explored further in future research.

Among the interesting differences arising out of the presentations, we would note, for example, the degree of controversy over the state of scientific consensus in Europe and the United States, or the relative importance of various communication channels in developed versus developing countries. In Europe and the US, for example, newspaper and television are among the most important information sources for the public, whereas in southern Africa, radio and informal communication channels play a far greater role. Literacy levels and the availability and affordability of information infrastructure are key determinants of this difference. In Africa, for example, even where literacy levels are high, the reading culture may be poorly developed and access to TV and the internet is limited by low levels of development and poverty.

Another interesting difference concerns the scope and reach of the decisions that certain information might inform. Whereas in developed countries decisions based on the information received may be limited to the individual and the immediate family, in developing countries especially in Africa, information is shared widely with individuals throughout a community, especially with influential opinion leaders, elders, local politicians, educated sons and daughters, thus potentially influencing a far larger group. These differences imply different challenges in how, with whom, and what is being communicated, and what impact such communication might have. They also imply different politics surrounding the communication of climate change. For example, visible, „professional“ contrarianism is virtually absent in Africa.

MOVING FORWARD

Improving the communication of climate change in ways that can truly facilitate and support societal response to a global challenge such as climate change requires first and foremost specific attention to it. Continuing to talk in the same ways, through the same channels, using the same tried and *un*-true (i.e., ineffective) frames and mental models, and involving and addressing the same, but limited set of actors, virtually promises slow progress at best. There is growing evidence, for example, that where communicators in the media are exposed to basic science training and information from professional scientists, there is a dramatic shift in the delivery of effective communication (ICPAC/NECJOGHA training workshops in the Greater Horn of Africa & Southern Africa).

Moreover, to cross institutional, disciplinary and science-practice boundaries requires patience, time, institutional support, willingness, training, and courage among those who would participate in the emerging, broader conversation. While some scientists have a natural talent as communicators, many do not and typically do not receive training to become effective communicators. There is little institutional or financial support to do so. Yet in interdisciplinary and practice-oriented settings, such boundary-crossing opportunities exist, and valuable lessons are being learned. Moreover, social scientists studying communication and social change dynamics can feed critical insights back to their physical and environmental science colleagues.

Engagement around specific policy challenges, business opportunities, or adaptation needs – in other words, around concrete projects – may also provide arenas well enough defined for participants to open up new channels of communication, to learn to speak *and* listen, negotiate visions, educate each other, and discover common languages. In short, such opportunities will help to move from information delivery to engaged dialogue and thus help build the necessary trust and social capital essential for embarking on social change. The concreteness of such situations will further help make this abstract „global change“ issue more real and local, and embed climate change in wider sustainability challenges.

Some situations may also allow for creative broadening of the array of communication formats to be employed. For example, various art forms – theater, story-telling, song, poetry, and dance – are beginning to address climate change, bringing the scientific issue alive in more engaging, accessible ways that offer meaning and facilitate emotional engagement.

Finally, the study of communication (and its effectiveness), and its role in social change has not yet risen to great significance in the international human dimensions research community. Including a wider set of disciplines that contribute to the larger research endeavor and to the understanding of core research priorities (e.g., IT, IDGEC, GECHS, and urbanization) should be a high priority for the IHDP. Research priorities may include but should not be limited to the following:

- cross-national comparative case studies of the impacts of communication;
- studies of communication effectiveness;
- exploration of gender differences in how communication is accessed, received, conducted, and linked to action;
- research into the causal linkages between communication and social change;
- progress in our understanding of how to connect science more effectively to social institutions of power and influence – such as the media, policy-makers at various levels, businesses, NGOs, and resource managers; and
- a better understanding of the political economy that shapes what kind of conversation about climate change is being or can be had, who is and who isn't heard, and why it is so difficult to change these conditions.

We thank the presenters and the audience of our session for lively discussion and for raising some of the important issues raised in this summary.

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